

TABLE 2.—Data furnished by the Canadian Meteorological Service, June 1933

Stations	Altitude above mean sea level, Jan. 1, 1919	Pressure			Temperature of the air						Precipitation		
		Station reduced to mean of 24 hours	Sea level reduced to mean of 24 hours	Depart- ure from normal	Mean max. + mean min. +2	Depart- ure from normal	Mean maxi- mum	Mean mini- mum	Highest	Lowest	Total	Depart- ure from normal	Total snowfall
	Feet	In.	In.	In.	° F.	° F.	° F.	° F.	° F.	° F.	In.	In.	In.
Cape Race, N.F.	99												
Sydney, C.B.I.	48	29.82	29.87	-0.08	57.0	+1.6	68.9	45.1	85	31	3.11		0.0
Halifax, N.S.	88	29.77	29.87	-0.08	59.4	+1.7	70.0	48.8	84	36	4.36	+1.13	.0
Yarmouth, N.S.	65	29.77	29.84	-0.11	56.9	+1.9	65.2	48.6	80	38	3.34	-0.42	.0
Charlottetown, P.E.I.	38	29.78	29.82	-0.10	57.6	+2	66.1	49.1	83	38	2.03	-0.90	.0
Chatham, N.B.	28	29.72	29.75	-0.14	60.4	+4	72.0	48.9	87	35	2.38	-0.29	.0
Father Point, Que.	20										6.75	+3.29	.0
Quebec, Que.	296	29.54	29.85	-0.07	64.2	+3.0	74.6	53.9	92	38			
Doucet, Que.	1,236										5.95	+2.30	.0
Montreal, Que.	187	29.65	29.85	-0.09	68.7	+3.8	77.7	59.7	94	45			
Ottawa, Ont.	236	29.63	29.89	-0.05	68.2	+2.9	80.3	56.1	97	40	1.70	-1.83	.0
Kingston, Ont.	265	29.61	29.91	-0.06	65.8	+2.4	74.2	57.4	88	40	1.69	-1.23	.0
Toronto, Ont.	379	29.53	29.92	-0.05	67.5	+4.1	78.2	56.8	92	43	1.92	-0.51	.0
Cochrane, Ont.	930										1.84	-0.96	.0
White River, Ont.	1,244												
London, Ont.	808				67.0		79.7	54.3	94	34	4.47		.0
Southampton, Ont.	656												
Parry Sound, Ont.	688												
Port Arthur, Ont.	644	29.23	29.94	.00	61.8	+5.4	71.2	52.4	87	38	1.99	-0.74	.0
Winnipeg, Man.	760	29.04	29.85	-0.04	67.9	+5.7	79.7	56.2	97	35	.07	-3.22	.0
Minnedosa, Man.	1,690												
Le Pas, Man.	860												
Qu'Appelle, Sask.	2,115	27.61	29.81	-0.06	63.8	+3.9	75.7	51.8	98	31	2.63	-0.79	.0
Moose Jaw, Sask.	1,759												
Swift Current, Sask.	2,392	27.32	29.79	-0.08	62.5	+2.5	72.8	52.1	103	31	2.86	+0.19	.0
Medicine Hat, Alb.	2,365	27.34	29.77	-0.08	66.6	+4.6	80.1	53.1	104	38	2.08	-0.68	.0
Calgary, Alb.	3,540	26.20	29.80	-0.04	59.1	+3.1	72.7	45.5	92	35	1.12	-1.33	.0
Banff, Alb.	4,521												
Prince Albert, Sask.	1,450	28.32	29.87	.00	61.8	+4.1	72.8	50.9	92	36	2.21	-0.30	.0
Battleford, Sask.	1,592	28.11	29.82	-0.04	62.3	+2.8	75.8	48.7	100	34	2.07	-1.24	.0
Edmonton, Alb.	2,150												
Kamloops, B.C.	1,262												
Victoria, B.C.	230	29.77	30.02	+0.01	55.7	-0.6	63.4	48.0	80	41	1.15	-0.05	.0
Barkerville, B.C.	4,180												
Estevan Point, B.C.	20												
Prince Rupert, B.C.	170												
Hamilton, Ber.	151												

SEVERE LOCAL STORMS, JUNE 1933

[Compiled by Mary O. Souder]

[The table herewith contains such data as have been received concerning severe local storms that occurred during the month. A revised list of tornadoes will appear in the Annual Report of the Chief of Bureau]

Place	Date	Time	Width of path (yards)	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority
Mandarin, Fla.	1	1:30-2 p.m.	12		\$7,500	Heavy hail	Crops damaged; amount of loss to citrus fruits not estimated; chickens killed and roofs damaged.	Official, U.S. Weather Bureau.
Switzerland, Fla.	1	2:30 p.m.				do.	Stones as large as hen's eggs; severe damage to crops; some areas complete loss; roofs damaged.	Do.
Titusville, Fla.	1	2:50-3 p.m.	11		500	do.	Stones as large as hen's eggs; crops damaged.	Do.
New Smyrna, Fla.	1	3:30 p.m.	12			do.	Considerable damage to young citrus trees; many windows broken; automobile tops damaged.	Do.
Bushnell, Fla.	1	3:45-4 p.m.				Hail	Pepper and tomato crops damaged considerably.	Do.
Baldwin, Fla.	1	5 p.m.	14			Heavy hail	Small crop damage; property loss not estimated.	Do.
Loretta, Fla.	1					do.	Stones as large as hen's eggs; hundreds of dollars damage to crops and trees; poultry killed; path several miles wide.	Do.
Barron, Dunn, Chipewewa, and Taylor Counties, Wis.	3	11-12 p.m.			20,000	Wind	Barns, silos, and small buildings wrecked.	Do.
Clear Lake, S. Dak.	3	6 p.m.	12			Hail and wind	Damage to small buildings; chickens and pigs killed.	Do.
Corona, Wilmot, and Milbank eastward to Big Stone Lake, S. Dak.	3	do.	15	1	100,000	Tornado	Many buildings destroyed; livestock killed.	Do.
Hobbs, N. Mex.	4	2:30 a.m.				Tornado	Telephone wires torn down; 1 man injured and 5 buildings wrecked.	Do.
Chicago, Ill.	4	8:13 p.m.		1		Thundersquall	Wires blown down; 15 persons injured; basements and streets flooded; trees damaged.	Do.
Port Byron, Rochelle, and Sycamore, Ill., and vicinity.	4				38,000	do.	Property damaged.	Do.
Manitowoc (near), Wis.	4					Rain and hail	Loss from washing and flooding of crops.	Do.
North of Marquette to vicinity of Kingston, Wis.	5	5:15 p.m.	150	1	105,000	Tornado	3 persons injured; 50 cattle killed or injured; 4 farm homes wrecked; path 10 miles long.	Do.
Martins Ferry, Ohio, vicinity of.	5	P.m.	2,640		87,500	Hail	Street lighting system out of commission; roofs shattered; trees and shrubbery ruined.	Do.
Wheeling, W. Va.	5	P.m.			5,000	Electrical and heavy hail	Much damage to orchards and truck.	Do.
Lena and Oconto Falls, Wis.	5				10,000	Heavy hail	Property damaged.	Do.
Williamsport and Lock Haven, Pa., and vicinity.	5-6	P.m.			7,500	Electrical	Much minor damage by flooding rains; 4 valuable cows killed.	Do.
Loudoun County, Va.	6	6-7 p.m.	12		10,000	Hail	Damage mostly to apple crop; trees broken down and wheat fields cut.	Do.
Worthington, Minn.	6	P.m.				Wind and rain	Wires blown down, entire town in darkness; roofs blown off; estimated loss several thousand dollars.	Do.

1 Miles instead of yards.

Severe local storms, June 1933—Continued

Place	Date	Time	Width of path (yards)	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority
Wheeler, Iowa.....	6	-----	-----	-----	835	Wind.....	Buildings damaged and livestock killed.....	Official, U.S. Weather Bureau.
Paw Paw and Marcellus, Mich.....	6	-----	-----	-----	-----	Wind and hail....	Thousands of dollars loss to property, fruit and grain; small buildings blown down.	Do.
Pierce and Dunn Counties, Wis.....	6-7	11:30 p.m.-2 a.m.	-----	-----	30,000	Wind.....	Many barns and other buildings wrecked.....	Do.
Buffalo and Erie, Niagara, Orleans and Genesee Counties, N. Y.....	7	11:35 a.m.-12:05 p.m.	-----	3	1,000,000	Thundersquall....	At least 12 persons injured; large damage to electric and telephone lines; many trees uprooted; storm was extensive in farming communities as well as in cities and towns.	Do.
Ludington, Mich., and vicinity.....	7	6:53 - 6:57 a.m.	-----	-----	-----	Rain and hail....	Hailstones as large as baseballs; several persons injured; damage to fruit and property; a number of birds injured or killed; damage estimated at several thousands.	Do.
Scranton, Pa.....	7	3 p.m.	-----	-----	25,000	Electrical and wind.	Trolley service interrupted; many large trees uprooted; several houses damaged by wind.	Do.
Imperial, Nebr.....	7	3-4 p.m.	¹ 10	-----	5,000	Hail.....	Property destroyed.....	Do.
Madison, Nebr.....	7	4:30 p.m.	¹ 4	-----	70,000	Tornado and hail..	Property destroyed and crops damaged.....	Do.
Lyon, Nebr.....	7	5 p.m.	¹ 2	-----	15,000	Wind.....	Damage to roofs, outbuildings and trees.....	Do.
Wakefield, Nebr.....	7	5-6 p.m.	¹ 3	-----	5,000	Wind and hail....	Property damage.....	Do.
Buffalo, N. Y.....	7	5:30 - 8:05 p.m.	-----	-----	-----	Thundersquall....	Telephone service disabled; 4 homes struck by lightning; much interference to traffic.	Do.
National Park, N. J.....	7	6 p.m.	-----	-----	15,000	Tornado.....	2 persons seriously injured; 2 houses carried away; other property damage.	Do.
North Platte, Nebr., eastern portion.	7	6-6:30 p.m.	-----	-----	16,000	Hail and wind....	Dwellings, automobiles and trees damaged.....	Do.
St. Lawrence, S. Dak.....	7	6:30 p.m.	-----	-----	-----	Hail and wind....	Crops damaged.....	Do.
Sioux City, Iowa.....	7	P.m.	-----	-----	-----	Thunderstorm, wind, and hail.	Wires and trees blown down; all traffic tied up; basements flooded.	Do.
Eastern, Pa., and vicinity.	7	do	-----	-----	10,000	Wind, electrical...	Many poles and trees blown down; house unroofed.	Do.
Winner, S. Dak.....	7	do	¹ 1	-----	200,000	Hail and wind....	Crops destroyed; some buildings demolished and many damaged.	Do.
Alpena, S. Dak.....	7	-----	-----	-----	-----	do	Barn and several small buildings destroyed; a cow and many chickens killed.	Do.
Florence and Commonwealth, Wis.....	7	-----	-----	-----	600	Thundersquall....	Barn wrecked; trees uprooted and windows broken.	Do.
Greenville, Fla.....	8	1 a.m.	880	-----	-----	Wind.....	Communication lines disrupted; telephone poles and trees blown down.	Do.
Lee County, Va.....	8	5-10 p.m.	¹ 2-3	-----	5,000	Hail.....	Damage mostly to gardens and fruits; some property loss.	Do.
Harrisburg, Pa.....	8	P.m.	-----	-----	-----	Wind, hail, electrical.	Highest wind ever recorded in June; considerable damage to trees and property.	Do.
Postville, Iowa.....	8	-----	-----	-----	-----	Heavy hail and wind.	Hundreds of windows broken and roofs damaged; several trees and barns blow down.	Do.
Marinette, Washburn, Jackson, Taylor, and Chippewa Counties, Wis.....	8	-----	-----	-----	20,000	Heavy hail.....	Damage to crops.....	Do.
Outagamie, Shawano, Oconto, and Marinette Counties, Wis.....	8	-----	-----	1	250,000	Wind.....	1 woman fatally injured; another seriously injured and several minor injuries reported.	Do.
Bethlehem, Pa.....	8-9	4 p.m.	-----	-----	15,000	Wind, electrical...	Poles blown down; trees uprooted; 3 buildings unroofed.	Do.
Bland County, Va.....	9	1-3 p.m.	¹ 4-6	-----	5,000	Hail.....	Damage to grain and fruit; some property damage.	Do.
Elkins and Parsons, W. Va., and vicinity.	9	-----	-----	-----	1,000	do	Damage to roofs and truck gardens.....	Do.
New York City and northern shore of Long Island.	10	3:30-5:30 a.m.	-----	-----	-----	Thunderstorm....	Electric and telephone service disrupted; trees uprooted; many boats blown from their moorings; property loss not estimated.	Do.
Wynot, Nebr., north of..	10	-----	-----	-----	-----	Wind and hail....	Corn and oats beaten into the ground; gardens stripped; large trees uprooted; small grains total loss; property damaged.	Do.
Hunterdon, Mercer, and Somerset Counties, N. J.....	10	A.m.	-----	-----	-----	Wind.....	Wires and trees blown down; a number of houses unroofed.	Do.
Torrington, Wyo.....	10	-----	-----	-----	-----	Tornado.....	Trees and small buildings destroyed.....	Do.
Bethlehem, Pa.....	10-11	10 p.m.	-----	-----	10,000	Wind, electrical...	Tree uprooted; much minor damage.....	Do.
Houghton Lake Village, Mich.....	11	-----	-----	4	-----	Gale, hail, electrical.	Telephone connections about the lake were cut off; cottages unroofed; 4 persons drowned.	Do.
Ogemaw and Iosco Counties, Mich.....	11	-----	-----	-----	25,000	Electrical and wind.	Considerable damage to buildings; many trees blown down.	Do.
Prentice and Knowlton, Wis.....	11	-----	-----	-----	3,500	Wind.....	3 barns destroyed.....	Do.
The Bronx, N. Y.....	12	5 p.m.	-----	2	-----	Electrical.....	5 men standing under a tree struck by lightning, killing 2 instantly.	Do.
Eastern Long Island.....	12	-----	-----	1	-----	Wind and hail....	Farmer crushed by falling tree; much damage to cauliflower, potatoes, and other vegetable crops.	Do.
Hanson, Fla.....	13	Noon	-----	-----	600	Hail and high wind.	Damage to crops; small property loss.	Do.
Miami, Fla.....	14	3:13-6 p.m.	-----	-----	-----	Electrical and heavy rain.	Many parts of the city under water; buildings in business section of down-town area flooded.	Do.
Florence, Lincoln Park, and Brewster, Colo., and vicinity.	14	P.m.	¹ 1	-----	-----	Heavy hail.....	Heaviest hailstorm in the history of the Wet Mountain Valley; much damage to crops, gardens, and fruit trees; estimated damage in thousands.	Do.
Garrett, Harford Howard, and Anne Arundel Counties, Md.....	17	4 p.m.	-----	-----	210,000	Thunderstorm and hail.	Loss to crops and property.....	Do.
Rawlins County, Kans..	19	4-5 p.m.	¹ 4	-----	2,000	Hail and wind....	Several small farm buildings demolished; hail drifted 4 feet deep; path 8 miles long.	Do.
Madison (near), Fla.....	20	6:30 p.m.	-----	-----	2,500	Heavy hail and wind.	Timber and fencing blown down; several houses damaged.	Do.
Trinidad (near), Colo.....	20	-----	-----	1	-----	Electrical.....	1 person killed by lightning.....	Do.
Chippewa, Waupaca, Door, and Florence Counties, Wis.....	20	-----	-----	-----	35,000	Wind.....	Property damage.....	Do.
Torrington, Wyo., and vicinity.	20	-----	-----	-----	-----	Heavy hail.....	Crops badly damaged; windows and street lights broken; car tops punctured.	Do.
Wilmington, N. C.....	21	3:30 p.m.	-----	-----	1,500	Tornadic winds...	Roofs damaged; derrick on a floating pile driver wrecked; two workmen slightly injured; another blown into river; no lightning or thunder during this storm.	Do.
Clayton, N. Y., and vicinity.	21	P.m.	-----	-----	-----	Wind, rain, electrical.	Wires and poles down; roofs blown off; tree uprooted and gardens damaged.	Do.

¹ Miles instead of yards

Severe local storms, June 1933—Continued

Place	Date	Time	Width of path (yards)	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority
Millford, Mich., vicinity of.	21					Severe hail and wind.	Much damage to property, crops and trees.	Official, U.S. Weather Bureau.
Sharon Springs, N.Y., and vicinity.	21				7,500	Hail.	Damage to fruits and other crops.	Do.
Winneshiek, Fayette, and Delaware Counties, Iowa.	22	5-10:30 p.m.				Wind, rain, and hail.	Oats totally destroyed in small areas; tree uprooted; small buildings blown over, 90 to 100 acres of corn severely damaged by heavy hail.	Do.
Woodlawn, Tex.	22					Tornado	Workshop and several outbuildings destroyed.	Do.
Green River, Wyo., vicinity of.	22					do.	Small buildings destroyed; roof lifted from grandstand in the ball park.	Do.
Arkadelphia, Ark., and vicinity.	23				2,000	Wind.	Damage to barns, houses, and timber.	Do.
Cedar Rapids, Iowa.	23					Electrical.	200 telephones out of order; slight damage from lightning.	Do.
Raynesford-Brooks, Mont.	23		1-5		50,000	Hail.	10,000 acres of wheat damaged; severe damage to gardens, hay, poultry, and windows.	Do.
America and Marion, Iowa.	24	Noon	2,200			do.	Small grains and corn damaged considerably; poultry killed; path 7 miles long.	Do.
Waterloo, Iowa.	24	2 p.m.				Electrical and rain.	3 small fires ignited by lightning; sewer washed out; signs blown down.	Do.
Dallas and Winneshiek Counties, Iowa.	24	9:15 p.m.			2,500	Tornado, electrical.	Trees blown down; barn destroyed and house damaged.	Do.
Buchanan County, Iowa.	24	P.m.				Wind.	Poles blown down between Independence and Spencers Grove.	Do.
Wauke, Iowa.	24	P.m.				Tornado.	House and outbuildings on a farm totally destroyed.	Do.
Hope, Ark.	24					Wind.	Considerable damage to buildings.	Do.
Mena (near), Ark.	25	3 p.m.			500	Tornado.	Property damaged; path narrow.	Do.
Lawrence and Barry Counties, Mo.	25					do.	Damage to farm buildings, trees, and crops.	Do.
Fergus County, Mont.	25			2		Severe electrical.	Man and boy killed by lightning while riding the same horse.	Do.
Jamestown, Medina, and Fredonia, N.Y.	25				12,000	Heavy thunderstorms.	Much damage by flooding at Jamestown; 2 barns at Medina and 1 at Fredonia burned after being struck by lightning.	Do.
Fairview, Mont.	25-26	P.m.	2,640		4,000	Hail.	50 percent loss to crops near the center of the path.	Do.
Arkadelphia, Ark.	26				4,000	Wind and hail.	Damage to buildings and crops.	Do.
Greenbrier, Ark.	26					Wind.	Considerable damage to houses, barns, and timber.	Do.
Jackson County, Kans.	27	4 p.m.				Wind.	Small buildings blown down; farm house damaged; loss not estimated; path 12 miles long.	Do.
Pottawatomie County, Kans.	27	6-7 p.m.	1-2		4,000	Tornadoic winds and hail.	Barn demolished, livestock killed; crops damaged; path 15 miles long.	Do.
Chapman, Kans., 9 miles southeast.	27	7:25 p.m.	1-4		8,500	Wind and hail.	Barn and smaller buildings blown down; path 4 miles long.	Do.
Springfield, Mo., and vicinity.	27	P.m.			2,800	Tornadoic winds, electrical.	Telephone lines burned out; lightning caused several small fires; an orchard of 50 apple trees completely destroyed.	Do.
Milbank, S.Dak.	27	do.			3,000	Tornado.	Scores of haystacks carried away; outbuildings wrecked.	Do.
Janesville, Wis.	27				1,000	Wind.	Portion of a factory roof blown off.	Do.
Jefferson and St. Lawrence Counties, N.Y.	28	3 p.m.				Wind, electrical.	Telephone and electric wires down; considerable damage to trees; destruction widespread; loss estimated to be in thousands.	Do.
St. Elmo, Ill.	28				1,000	Wind.	Property damaged.	Do.
Hysham, Mont., and vicinity.	28		1-6			Hail.	30 percent loss of alfalfa seed.	Do.
Arcadia-North Loup, Nebr.	29	6 p.m.			6,000	Hail.	Property damaged.	Do.
Merrick and Polk Counties, Nebr.	29	7-8 p.m.	1-4		50,000	do.	Stones as large as baseballs killing hogs and chickens; one person injured.	Do.
Republic County, Kans.	29	7 p.m.			2,000	Tornadoic winds.	Small buildings and 2 large barns blown down.	Do.
Vesper to Bernard, Kans., and vicinity.	29	do.	880		6,000	Tornado and heavy hail.	Damage to barns and outbuildings; growing crops damaged by hail.	Do.
Edmund, S.C.	29	1 p.m.			4,000	Thundersquall.	Damage mostly to peach crop; small church wrecked.	Do.
Chicago, Ill.	29	P.m.				do.	Basements and streets flooded; traffic delayed; considerable damage by lightning and high wind.	Do.
Wichita, Kans.	29					Wind.	Trees blown down; awnings ripped from their frames; 2 houses damaged by falling tree.	Do.
Ashton, S.Dak.	30	3 p.m.	1-2			Hail.	Damage to crops.	Do.
Academy, Stickney Mitchell, Colton, and Dell Rapids, S.Dak.	30	4-5 p.m.	1-2-15		310,000	Tornadoic wind and hail.	Many buildings demolished or damaged; crops destroyed; livestock and chickens killed.	Do.
Cincinnati, Ohio.	30	4:47 - 9:40 p.m.				Severe thunderstorm.	Minor damage to trees, wires, and signs; few houses unroofed.	Do.
Hazelton and Jeddo, Pa., and vicinity.	30	5:45 p.m.				Electrical and wind.	Roundhouse swept away by the wind; telegraph poles and wires down; trees uprooted.	Do.
Esbon, Kans., north of.	30	6 p.m.	1-3		10,000	Hail and wind.	Corn crop damaged by hail; path 10 miles long.	Do.
Platte Center, Nebr., 5 miles northeast of.	30	7-8 p.m.	1-3		2,000	Wind.	Damage mostly to barns, outbuildings and windmills.	Do.
Butler and Hancock Counties, Iowa.	30	9-10 p.m.			15,000	do.	Loss of crops and livestock; damage to property.	Do.
Wisner-West Point, Nebr.	30	9-11 p.m.	1-5		15,000	Wind and hail.	Property damaged.	Do.
Rushville, Ind.	30	P.m.			20,000	Wind and rain.	All telephone lines down, roofs blown off; 2 churches and the courthouse damaged by falling trees.	Do.
Scandia, Kans., north and west of.	30	do.			2,000	Tornado and hail.	Corn fields stripped; barn blown down; smaller buildings blown away and trees twisted; several cattle killed.	Do.
Southern Minnesota.	30	do.			500,000	Wind.	Buildings damaged; large loss to trees.	Do.
Oil City, Pa.	30	do.			5,000	do.	Portion of small sanatorium blown in and several patients slightly injured.	Do.
Philadelphia, Pa., and suburbs.	30	do.		3	10,000	Wind, electrical.	2 children killed when coming in contact with high-tension wire blown down; man killed by falling sign; much minor damage.	Do.
Pine Grove Furnace, Pa.	30	do.		2		Electrical.	2 members Civilian Conservation Corps killed in camp.	Do.
Green, Lafayette, and Rock Counties, Wis.	30				2,500	Heavy hail.	No details.	Do.
Snowbelt, Mont., 10 miles southwest.	30		1-5			Hail.	Heavy damage to crops.	Do.
Trempealeau and Marquette, Counties, Wis.	30				2,500	Thundersquall.	Several barns damaged and small buildings blown down.	Do.

1 Miles instead of yards.

